

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 26.10.2017




Version number 3

Revision: 26.10.2017

SECTION 1: Identification of the substance/mixture and of the company/undertaking

- 1.1 Product identifier
- Trade name: **KEMPEROL RepairFix**
- 1.2 Relevant identified uses of the substance or mixture and uses advised against
 - Identified use: intended for professional use only!
- Application of the substance / the mixture: Waterproofing
- 1.3 Details of the supplier of the safety data sheet
- Manufacturer/Supplier: KEMPER SYSTEM GmbH & Co. KG
Holländische Strasse 32-36
34246 Vellmar
Deutschland / Germany
Telefon: +49 (0)561 / 8295-0
Telefax: +49 (0)561 / 8295-5110
E-Mail: MSDS@KEMPER-SYSTEM.COM
- Further information obtainable from: research & development
- 1.4 Emergency telephone number: Giftinformationszentrum der Länder Rheinland-Pfalz und Hessen
Langenbeckstraße 1; Gebäude 601; 55131 Mainz
Tel. Nr.: +49 (0)6131 / 19 24 0
Universitätsmedizin der Johannes Gutenberg-Universität Mainz

SECTION 2: Hazards identification

- 2.1 Classification of the substance or mixture
- Classification according to Regulation (EC) No 1272/2008
 - Flam. Liq. 3 H226 Flammable liquid and vapour.
 - Eye Irrit. 2 H319 Causes serious eye irritation.
 - Skin Sens. 1 H317 May cause an allergic skin reaction.
 - STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure.
 - Aquatic Chronic 3 H412 Harmful to aquatic life with long lasting effects.
- 2.2 Label elements
- Labelling according to Regulation (EC) No 1272/2008
- Hazard pictograms
 - The product is classified and labelled according to the CLP regulation.
 -   
 - GHS02 GHS07 GHS08
- Signal word: Warning
- Hazard-determining components of labelling: Poly[oxy(methyl-1,2-ethanediyl)], alpha-hydro-omega-hydroxy-, polymer with 2,4-diisocyanato-1-methylbenzene
Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)
4-isocyanatosulphonyltoluene
- Hazard statements
 - H226 Flammable liquid and vapour.
 - H319 Causes serious eye irritation.
 - H317 May cause an allergic skin reaction.
 - H373 May cause damage to organs through prolonged or repeated exposure.
 - H412 Harmful to aquatic life with long lasting effects.
- Precautionary statements
 - P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
 - P241 Use explosion-proof [electrical/ventilating/lighting] equipment.
 - P260 Do not breathe dust/fume/gas/mist/vapours/spray.
 - P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
 - P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 - P501 Dispose of contents/container in accordance with local/regional/national/international regulations.
- Additional information: EUH204 Contains isocyanates. May produce an allergic reaction.
- 2.3 Other hazards
- Results of PBT and vPvB assessment
- PBT: Not applicable.
- vPvB: Not applicable.

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SECTION 3: Composition/information on ingredients

- 3.2 Chemical characterisation: Mixtures

- **Description:** Mixture: consisting of the following components.

- Dangerous components:

CAS: 7727-43-7 EINECS: 231-784-4 Reg.nr.: 01-2119491274-35	barium sulphate, natural substance with a Community workplace exposure limit	50-100%
CAS: 37273-56-6 EC number: 609-378-7	Poly[oxy(methyl-1,2-ethanediyl)], alpha-hydro-omega-hydroxy-, polymer with 2,4-diisocyanato-1-methylbenzene Eye Irrit. 2, H319; Skin Sens. 1, H317	12.5-25%
EC number: 919-446-0 Reg.nr.: 01-2119458049-33	Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%) Flam. Liq. 3, H226; STOT RE 1, H372; Asp. Tox. 1, H304; Aquatic Chronic 2, H411; STOT SE 3, H336	2.5-10%
CAS: 68855-54-9 EINECS: 272-489-0 Reg.nr.: 01-2119488518-22	Kieselguhr, soda ash flux-calcined STOT RE 2, H373	2.5-10%
CAS: 13463-67-7 EINECS: 236-675-5 Reg.nr.: 01-2119489379-17	titanium dioxide substance with a Community workplace exposure limit	0.5-2.5%
CAS: 4083-64-1 EINECS: 223-810-8 Index number: 615-012-00-7 Reg.nr.: 01-2119980050-47	4-isocyanatosulphonyltoluene Acute Tox. 3, H331; Resp. Sens. 1, H334; Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335	0.5-2.5%
CAS: 584-84-9 EINECS: 209-544-5 Index number: 615-006-00-4 Reg.nr.: 01-2119486974-18	4-methyl-m-phenylene diisocyanate Acute Tox. 1, H330; Resp. Sens. 1, H334; Carc. 2, H351; Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317; STOT SE 3, H335; Aquatic Chronic 3, H412	<0.5%

- **Additional information:** For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures

- 4.1 Description of first aid measures

- General information:

Immediately remove any clothing soiled by the product.
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
Do not leave affected persons unattended.
Personal protection for the First Aider.

- After inhalation:

Take affected persons out of danger area and lay down.
In case of unconsciousness place patient stably in side position for transportation.
Supply fresh air; consult doctor in case of complaints.

- After skin contact:

Immediately wash with water and soap and rinse thoroughly.

- After eye contact:

Seek medical treatment in case of complaints.
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
Protect unharmed eye.

- After swallowing:

If symptoms persist consult doctor.

- 4.2 Most important symptoms and effects, both acute and delayed

No further relevant information available.

- 4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

SECTION 5: Firefighting measures

- 5.1 Extinguishing media

- Suitable extinguishing agents:

CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
Use fire extinguishing methods suitable to surrounding conditions.

- 5.2 Special hazards arising from the substance or mixture

Formation of toxic gases is possible during heating or in case of fire.

- 5.3 Advice for firefighters

- Protective equipment:

Do not inhale explosion gases or combustion gases.

- Additional information

Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

SECTION 6: Accidental release measures

- 6.1 Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.

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- **6.2 Environmental precautions:** Keep away from ignition sources.
Avoid contact with skin and eyes
Inform respective authorities in case of seepage into water course or sewage system.
Do not allow to enter sewers/ surface or ground water.
Prevent from spreading (e.g. by damming-in or oil barriers).
- **6.3 Methods and material for containment and cleaning up:** Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Ensure adequate ventilation.
- **6.4 Reference to other sections** See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling** Store in cool, dry place in tightly closed receptacles.
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.
- **Information about fire - and explosion protection:** Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** Store only in the original receptacle.
- **Information about storage in one common storage facility:** Store away from foodstuffs.
- **Further information about storage conditions:** Protect from frost.
Store in dry conditions.
Keep container tightly sealed.
Protect from heat and direct sunlight.
Recommended storage temperature: 10-30 °C
- **Storage class:** 3
- **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.
- **8.1 Control parameters**

- Ingredients with limit values that require monitoring at the workplace:

7727-43-7 barium sulphate, natural

WEL	Long-term value: 10* 4** mg/m ³ *inhalable dust **respirable dust
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13463-67-7 titanium dioxide

WEL	Long-term value: 10* 4** mg/m ³ *total inhalable **respirable
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4083-64-1 4-isocyanatosulphonyltoluene

WEL	Short-term value: 0.07 mg/m ³ Long-term value: 0.02 mg/m ³ Sen; as -NCO
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584-84-9 4-methyl-m-phenylene diisocyanate

WEL	Short-term value: 0.07 mg/m ³ Long-term value: 0.02 mg/m ³ Sen; as -NCO
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- **Additional information:** The lists valid during the making were used as basis.
- **8.2 Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:** The usual precautionary measures are to be adhered to when handling chemicals.
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing
Wash hands before breaks and at the end of work.
Avoid contact with the eyes and skin.
- **Respiratory protection:** When used properly and under normal conditions, breathing protection is not required.

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<p>- Protection of hands:</p>	<p>Use suitable respiratory protective device in case of insufficient ventilation. Filter A/P2 Respiratory protection - Gas filters and combination filters according to EN 141</p>
<p>- Material of gloves</p>	<p>Recommended materials: Butyl rubber, BR Recommended thickness of the material: ≥ 0.5 mm The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.</p>
<p>- Penetration time of glove material</p>	<p>The determined penetration times according to EN 374 part III are not performed under practical conditions. Therefore a maximum wearing time, which corresponds to 50% of the penetration time, is recommended.</p>
<p>- As protection from splashes gloves made of the following materials are suitable:</p>	<p>Nitrile rubber, NBR Recommended thickness of the material: ≥ 0.1 mm Penetration time (min.): <10</p>
<p>- Eye protection:</p>	<p>Tightly sealed goggles</p>
<p>- Body protection:</p>	<p>Protective goggles and facial protection - Classification according to EN 166 Protective work clothing Impervious protective clothing</p>



SECTION 9: Physical and chemical properties

- 9.1 Information on basic physical and chemical properties

- General Information

- Appearance:

Form:	Fluid
Colour:	According to product specification
Odour:	Characteristic
Odour threshold:	Not determined.

- pH-value: Not determined.

- Change in condition

Melting point/freezing point:	Undetermined.
Initial boiling point and boiling range:	Undetermined.

- Flash point: 50 °C

- Flammability (solid, gas): Not applicable.

- Ignition temperature:

Decomposition temperature: Not determined.

- Auto-ignition temperature: Product is not selfigniting.

- Explosive properties: Product is not explosive. However, formation of explosive air/vapour mixtures are possible.

- Explosion limits:

Lower:	Not determined.
Upper:	Not determined.

- Density at 20 °C: 1.55 g/cm³

- Relative density: Not determined.

- Vapour density: Not determined.

- Evaporation rate: Not determined.

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- Solubility in / Miscibility with water:	Not miscible or difficult to mix.
- Partition coefficient: n-octanol/water:	Not determined.
- Viscosity: Dynamic:	Not determined.
Kinematic:	Not determined.
- Solvent content: VOC (EC)	13.80 %
- 9.2 Other information	No further relevant information available.

SECTION 10: Stability and reactivity

- 10.1 Reactivity	No further relevant information available.
- 10.2 Chemical stability	
- Thermal decomposition / conditions to be avoided:	No decomposition if used according to specifications.
- 10.3 Possibility of hazardous reactions	No dangerous reactions known.
- 10.4 Conditions to avoid	No further relevant information available.
- 10.5 Incompatible materials:	No further relevant information available.
- 10.6 Hazardous decomposition products:	No dangerous decomposition products known.

SECTION 11: Toxicological information

- 11.1 Information on toxicological effects	
- Acute toxicity	Based on available data, the classification criteria are not met.

- LD/LC50 values relevant for classification:

7727-43-7 barium sulphate, natural

Oral	LD50	>15,000 mg/kg (rat)
Dermal	LD50	>2,000 mg/kg (rat)

37273-56-6 Poly[oxy(methyl-1,2-ethanediyl)], alpha-hydro-omega-hydroxy-, polymer with 2,4-diisocyanato-1-methylbenzene

Oral	LD50	>5,000 mg/kg (rat)
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Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)

Oral	LD50	>15,000 mg/kg (rat) (OECD 401)
Dermal	LD50	>3,400 mg/kg (rat) (OECD 402)

13463-67-7 titanium dioxide

Oral	LD50	>5,000 mg/kg (rat)
Dermal	LD50	>10,000 mg/kg (rat)

4083-64-1 4-isocyanatosulphonyltoluene

Oral	LD50	2,234 mg/kg (rat)
Dermal	LD50	>2,000 mg/kg (rat)
Inhalative	LC50/4 h	3 mg/l (ATE)

584-84-9 4-methyl-m-phenylene diisocyanate

Oral	LD50	5,110 mg/kg (rat) (male; OECD 401)
		4,130 mg/kg (rat) (female; OECD 401)
Dermal	LD50	>9,400 mg/kg (rabbit) (OECD 402)
Inhalative	LC50/4 h	107 mg/l (rat) (OECD 403)
	LC50/1 h	0.47 mg/l (rat) (OECD 403)
	LC50	0.47 mg/l (rat) (1h; OECD 403)

- Primary irritant effect:	
- Skin corrosion/irritation	Based on available data, the classification criteria are not met.
- Serious eye damage/irritation	Causes serious eye irritation.
- Respiratory or skin sensitisation	May cause an allergic skin reaction.
- CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)	
- Germ cell mutagenicity	Based on available data, the classification criteria are not met.
- Carcinogenicity	Based on available data, the classification criteria are not met.
- Reproductive toxicity	Based on available data, the classification criteria are not met.
- STOT-single exposure	Based on available data, the classification criteria are not met.
- STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.

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Trade name: **KEMPEROL RepairFix**- **Aspiration hazard**

Based on available data, the classification criteria are not met.

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SECTION 12: Ecological information

- **12.1 Toxicity**- **Aquatic toxicity:****7727-43-7 barium sulphate, natural**

EC50 32 mg/l (Daphnia magna) (Ba-Ion; 48 h)

37273-56-6 Poly[oxy(methyl-1,2-ethanediyl)], alpha-hydro-omega-hydroxy-, polymer with 2,4-diisocyanato-1-methylbenzene

EC50 >10,000 mg/l (Belebtschlamm) (OECD 209)

Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)

LL 50 10 mg/l (Oncorhynchus mykiss (Regenbogenforelle)) (96h; OECD 203)

NOELR 0.13 mg/l (Oncorhynchus mykiss (Regenbogenforelle)) (72h)

EL50 4.6 mg/l (Pseudokirchneriella subcapitata) (72h; OECD 201)

10 mg/l (Daphnia magna) (48h; OECD 202)

NOEC 97 mg/kg (Daphnia magna) (21 days)

13463-67-7 titanium dioxide

LC50/96 h >1,000 mg/l (Pimephales promelas)

EC50 >1,000 mg/l (Daphnia magna)

EC50 61 mg/l (Pseudokirchneriella subcapitata)

4083-64-1 4-isocyanatosulphonyltoluene

EC50 133.9 mg/l (Daphnia magna) (48h)

LC 50 48.7 mg/l (fish) (96h)

584-84-9 4-methyl-m-phenylene diisocyanate

NOEC >1,000 mg/kg (Eisenia foetida) (14 days; OECD 207)

NOEC 1.1 mg/kg (Daphnia magna) (21d)

ErC50 4,300 mg/l (Clorella vulgaris) (96h; OECD 201)

3,230 mg/l (Skeletonema costatum) (96h; OECD 201)

LC50/96 h 133 mg/l (Oncorhynchus mykiss (Regenbogenforelle)) (OECD 203)

EC50 >100 mg/l (Belebtschlamm) (3h; OECD 209)

EC50 12.5 mg/l (Daphnia magna) (OECD 202)

EC50 >100 mg/l (Belebtschlamm)

- **12.2 Persistence and degradability**

No further relevant information available.

- **12.3 Bioaccumulative potential**

No further relevant information available.

- **12.4 Mobility in soil**

No further relevant information available.

- **Ecotoxicological effects:**- **Remark:**

Harmful to fish

- **Additional ecological information:**- **General notes:**

Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water
 Do not allow product to reach ground water, water course or sewage system.
 Danger to drinking water if even small quantities leak into the ground.
 Harmful to aquatic organisms

- **12.5 Results of PBT and vPvB assessment**- **PBT:**

Not applicable.

- **vPvB:**

Not applicable.

- **12.6 Other adverse effects**

No further relevant information available.

SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**- **Recommendation**

Must not be disposed together with household garbage. Do not allow product to reach sewage system.
 Disposal according to official regulations

- **European waste catalogue**

08 04 09* waste adhesives and sealants containing organic solvents or other hazardous substances

08 04 10 waste adhesives and sealants other than those mentioned in 08 04 09

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- Uncleaned packaging:
- Recommendation: Disposal must be made according to official regulations.

SECTION 14: Transport information

- 14.1 UN-Number - ADR, ADN, IMDG - IATA	Void UN1866
- 14.2 UN proper shipping name - ADR, ADN, IMDG - IATA	Void RESIN SOLUTION
- 14.3 Transport hazard class(es) - ADR, ADN, IMDG - Class - IATA	Void
	
- Class - Label	3 Flammable liquids. 3
- 14.4 Packing group - ADR, IMDG - IATA	Void III
- 14.5 Environmental hazards: - Marine pollutant:	No
- 14.6 Special precautions for user - Stowage Category	Not applicable. A
- 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable.
- Transport/Additional information: - ADR - Remarks:	Kein Gut der Kl. 3 gemäß 2.2.3.1.5 ADR / 2.3.2.5 IMDG-Code ADR: Verpackung > 450 l = UN 1866 - Kl. 3 - HARZLÖSUNG, entzündbar - VPIII IMDG: Verpackung > 30 l = UN 1866 - Kl.3 - HARZLÖSUNG, entzündbar - VPIII Außerhalb ADR / IMDG = UN 1866 - Kl. 3 - HARZLÖSUNG, entzündbar - VPIII Not goods of cl. 3 in accordance with 2.2.3.1.5 ADR / 2.3.2.5 IMDG-Code ADR: Packaging > 450 l = UN 1866 - cl. 3 - RESIN SOLUTION, flammable - PGIII IMDG: Packaging > 30 l = UN 1866 - cl. 3 - RESIN SOLUTION, flammable - PGIII Outside ADR / IMDG = UN 1866 - cl. 3 - RESIN SOLUTION, flammable - PGIII
- UN "Model Regulation":	Void

SECTION 15: Regulatory information

- 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
 - Directive 2012/18/EU
 - Named dangerous substances - ANNEX I
 - Seveso category
 - Qualifying quantity (tonnes) for the application of lower-tier requirements
 - Qualifying quantity (tonnes) for the application of upper-tier requirements
- None of the ingredients is listed.
P5c FLAMMABLE LIQUIDS
- 5,000 t
- 50,000 t

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- **REGULATION (EC) No 1907/2006 ANNEX XVII**

Conditions of restriction: 3

- **National regulations:**- **Information about limitation of use:**

Employment restrictions concerning juveniles must be observed.
 Employment restrictions concerning pregnant and lactating women must be observed.
 Employment restrictions concerning women of child-bearing age must be observed.

- **15.2 Chemical safety assessment:**

A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Relevant phrases**

H226 Flammable liquid and vapour.
 H304 May be fatal if swallowed and enters airways.
 H315 Causes skin irritation.
 H317 May cause an allergic skin reaction.
 H319 Causes serious eye irritation.
 H330 Fatal if inhaled.
 H331 Toxic if inhaled.
 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
 H335 May cause respiratory irritation.
 H336 May cause drowsiness or dizziness.
 H351 Suspected of causing cancer.
 H372 Causes damage to organs through prolonged or repeated exposure.
 H373 May cause damage to organs through prolonged or repeated exposure.
 H411 Toxic to aquatic life with long lasting effects.
 H412 Harmful to aquatic life with long lasting effects.

- **Department issuing SDS:**

research & development

- **Contact:**

research & development

- **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
 IMDG: International Maritime Code for Dangerous Goods
 IATA: International Air Transport Association
 GHS: Globally Harmonised System of Classification and Labelling of Chemicals
 EINECS: European Inventory of Existing Commercial Chemical Substances
 ELINCS: European List of Notified Chemical Substances
 CAS: Chemical Abstracts Service (division of the American Chemical Society)
 VOC: Volatile Organic Compounds (USA, EU)
 LC50: Lethal concentration, 50 percent
 LD50: Lethal dose, 50 percent
 PBT: Persistent, Bioaccumulative and Toxic
 vPvB: very Persistent and very Bioaccumulative
 Flam. Liq. 3: Flammable liquids – Category 3
 Acute Tox. 1: Acute toxicity – Category 1
 Acute Tox. 3: Acute toxicity – Category 3
 Skin Irrit. 2: Skin corrosion/irritation – Category 2
 Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
 Resp. Sens. 1: Respiratory sensitisation – Category 1
 Skin Sens. 1: Skin sensitisation – Category 1
 Carc. 2: Carcinogenicity – Category 2
 STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
 STOT RE 1: Specific target organ toxicity (repeated exposure) – Category 1
 STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2
 Asp. Tox. 1: Aspiration hazard – Category 1
 Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2
 Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3

- **Sources**

Internet:
 - www.echa.com
 - www.baua.de
 - www.gestis.itrust.de (IFA: Institute für Occupational Safety and Health of the German Social Accident Insurance)

- * **Data compared to the previous version altered.**